

AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A method in an OFDM direct conversion receiver, the method including:

receiving OFDM symbols, including an initial minimum number of short preamble symbols;

first generating autocorrelated signal values based on successively autocorrelating consecutive samples from consecutive OFDM symbols, each of the short preamble symbols having a first prescribed number of samples and each autocorrelated signal value generated based on autocorrelating a second number of adjacent samples, the second number twice the first prescribed number;

second generating a median autocorrelation value from at least a prescribed minimum number of the autocorrelated signal values having been generated from the initial minimum number of short preamble symbols; and

detecting a symbol boundary, identifying an end of the short preamble symbols, based on detecting the autocorrelated signal values having passed below a threshold that is based on the median autocorrelation value.

2. (CURRENTLY AMENDED) The method of claim 1, wherein each of the short preamble symbols have sixteen (16) samples as the first prescribed number, the step of first generating each autocorrelated signal value includes autocorrelating thirty-two (32) adjacent samples as the second number, and outputting a power value as the corresponding autocorrelated signal value.

3. (ORIGINAL) The method of claim 1, wherein the second generating step includes:

storing at least the prescribed minimum number of the autocorrelated signal values in a buffer; and

determining a median of the stored autocorrelated signal values as the median autocorrelation value.

4. (ORIGINAL) The method of claim 3, further comprising generating the threshold by multiplying the median autocorrelation value by a prescribed constant value.

5. (ORIGINAL) The method of claim 4, wherein the detecting step includes supplying the threshold and the autocorrelated signal values to a comparator, the comparator outputting a detection signal representing detection of the symbol boundary in response to the autocorrelated signal values passing below the threshold.

6. (CURRENTLY AMENDED) An OFDM direct conversion receiver including:
a correlator configured for receiving OFDM symbols, including an initial minimum number of short preamble symbols, and generating autocorrelated signal values based on successively autocorrelating consecutive samples from consecutive OFDM symbols, each of the short preamble symbols having a first prescribed number of samples and each autocorrelated signal value generated based on the correlator autocorrelating a second number of adjacent samples, the second number twice the first prescribed number;

a median filter configured for generating a median autocorrelation value from at least a prescribed minimum number of the autocorrelated signal values having been generated from the initial minimum number of short preamble symbols; and

a detector configured for detecting a symbol boundary, identifying an end of the short preamble symbols, based on detecting the autocorrelated signal values having passed below a threshold that is based on the median autocorrelation value.

7. (CURRENTLY AMENDED) The receiver of claim 6, wherein each of the short preamble symbols have sixteen (16) samples as the first prescribed number, the correlator configured for generating each autocorrelated signal value by autocorrelating thirty-two (32)

adjacent samples as the second number, and outputting a power value as the corresponding autocorrelated signal value.

8. (ORIGINAL) The receiver of claim 6, wherein the median filter includes:
a buffer configured for storing at least the prescribed minimum number of the autocorrelated signal values; and
a median calculator configured for determining a median of the stored autocorrelated signal values as the median autocorrelation value.

9. (ORIGINAL) The receiver of claim 8, wherein the detector is configured for generating the threshold by multiplying the median autocorrelation value by a prescribed constant value.

10. (ORIGINAL) The method of claim 9, wherein the detector includes a comparator configured for outputting a detection signal, representing detection of the symbol boundary, in response to the autocorrelated signal values passing below the threshold.